

I claim:

1. A method for transmitting digitized audio data from a first wireless device to a second wireless device, the method comprising the steps of:
 - generating an error detection code based upon the digitized audio data;
 - generating encoded payload information comprised of the digitized audio data and the error detection code;
 - forming a data packet having the structure of a BLUETOOTH synchronous connection-oriented link packet in which the payload is comprised of the encoded payload information;
 - transmitting the data packet from the first device to the second device via a BLUETOOTH synchronous connection-oriented link;
 - extracting the encoded payload from the data packet by the second wireless device;
 - detecting that the payload was received without errors by implementing an error detection protocol associated with the error detection code transmitted within the encoded payload.
2. The method of claim 1, in which the the digitized audio data is encoded at a bit rate less than approximately 64 kilohertz.
3. The method of claim 1, in which the audio data is encoded in an ADPCM format at a bitrate of approximately 32 kHz.

4. The method of claim 1, in which the audio data is encoded using a compression algorithm.
5. The method of claim 1, in which the data packet is formed having the structure of a BLUETOOTH HV3 packet.
6. The method of claim 1, which method further includes the preceding step of:
determining that the first and second devices are capable of communications using a non-standard link that is derived from a BLUETOOTH Synchronous Connection-Oriented communications link.
7. The method of claim 6, in which the step of determining that the first and second devices are capable of communicating includes the substep of utilizing the BLUETOOTH Service Discovery Protocol.
8. A method of forming a packet containing audio data for transmission using a BLUETOOTH synchronous connection-oriented communication link, the method comprising the steps of:
selecting digitized audio data encoded at a bitrate of less than 64 kHz;
appending an error detection field to the encoded audio data;
forming a packet payload comprised of the selected digitized audio data and the error detection field, the packet payload being sized to match the payload capacity of the synchronous connection-oriented communications link;

inserting the formed packet payload into said packet.

9. A method of forming a packet containing audio data for transmission using a BLUETOOTH asynchronous connectionless communication link, the method comprising the steps of:

selecting digitized audio data encoded at a predetermined bit rate;

determining the contents of an error detection field based upon the contents of the digitized audio data;

forming a packet payload comprised of the selected digitized audio data and the error detection field, the packet payload being sized to match the payload capacity of the asynchronous connectionless communication link;

inserting the formed packet payload into said packet.

10. A method for transmitting digitized audio data from a first wireless device to a second wireless device, the method comprising the steps of:

receiving digitized audio data at the transmitter of the first device;

generating an error detection code based upon the digitized audio data;

generating encoded payload information comprised of the digitized audio data and the error detection code;

forming a data packet having the structure of a BLUETOOTH asynchronous connectionless link packet in which the payload is comprised of the encoded payload information;

transmitting the data packet from the first device to the second device via a
BLUETOOTH asynchronous connectionless link;
flushing the asynchronous connectionless link approximately when the first device
transmitter receives new digitized audio data;
extracting the encoded payload from the data packet by the second wireless
device;
detecting that the payload was received without errors by implementing an error
detection protocol associated with the error detection code transmitted within the encoded
payload.

11. The method of claim 10, in which the data packet is automatically retransmitted by
the first device unless and until an acknowledge signal is received from the second
device, and/or the asynchronous connectionless link is flushed.